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Barbara Haggerty

Name

Signature

Barbara Haggerty



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application Of: Probst

For: Current Collector Having Non-Symmetric Grid Pattern
Converging At A Common Focal Point

the specification of which is being transmitted herewith.

Assistant Commissioner of Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT
Pursuant to 37 CFR 1.56

1. Applicants submit herewith patents, publications or other information of which they are aware, which they believe may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR 1.56.

The filing of this Information Disclosure Statement (IDS) shall not be construed as a representation that a search has been made (37 CFR 1.56(g)), an admission that the information cited is, or is considered to be material to patentability or that no other material information exists.

IDS For: Current Collector Having Non-Symmetric
Grid Pattern Converging At A Common Focal
Point
Inventor: Probst

The filing of this IDS shall not be construed as an admission against interest in any manner (Notice of Jan. 9, 1992, 1135 O.G. 13-25, at 25).

2. Attached is Form PTO-1449. Legible copies of all items listed accompany this IDS.

3. A concise explanation of the possible relevance of the listed information items is as follows:

U.S. Patent No. 4,221,852 to Qureshi related to minimizing the internal resistance of battery grids and shows a grid in which the solid elements converge at a common lug 21.

U.S. Patent No. 4,477,546 to Wheeler et al. describes a battery lattice in which the solid elements converge toward a tab 32 for improving current density.

U.S. Patent No. 5,434,019 to Zhang et al. discloses an electrode plate for solving problems of high internal resistance. The plate is described as net like. The net converges toward a common ear 10 of the electrode plate.

Other patents which show current collectors having conductor elements converging at a tab include U.S. Patent Nos. 2,503,970 to Rupp, 4,118,553 to Buckenthal et al., 4,320,183 to Qureshi, 4,528,255 to Hayes et al., 5,498,496 to Sasaki et al. and 5,582,936 to Mrotek et al. Further, various ones of the

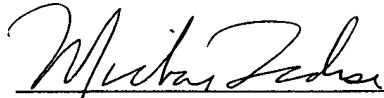
IDS For: Current Collector Having Non-Symmetric
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prior art patents show current collectors having conductor elements converging at a focal point located in the interior of the current collector. These include U.S. Patent Nos. 1,528,963 to Adams et al., 3,490,954 to Babusci et al. and 4,250,235 to DuPont et al.

4. The remaining patents on the attached Form PTO 1449 were located during a patentability search.

5. The person making this statement is the agent who signs below, who makes this statement on the information supplied by the inventors and the information in the agent's file.

Respectfully Submitted,

By: 
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PTO/SB/08A(08/00)

Approved for use through 10/31/2002, OMB 0651-0031

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT***(Use as many sheets as necessary)*

INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>	Application Number				
	Filing Date		02/12/2002		
	First Named Inventor		Probst		
	Group Art Unit				
	Examiner Name				
Sheet	4	of	4	Attorney Docket Number	04645.1056

029 U.S. PTO
10/074369
02/12/02

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. 1	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code 2 (if known)			
	1	1,440,354		J. N. Hanna	12/26/1922	
	2	1,528,963		E. S. Adams et al.	03/10/1925	
	3	2,503,970		J. L. Rupp	04/11/1950	
	4	3,490,954		L. D. Babusci et al.	01/20/1970	
	5	3,989,539		Grabbe	11/02/1976	
	6	4,118,553		Buckethal et al.	10/03/1978	
	7	4,221,852		Qureshi	09/09/1980	
	8	4,250,235		DuPont et al.	02/10/1981	
	9	4,320,183		Qureshi	03/16/1982	
	10	4,477,546		Wheeler et al.	10/16/1984	
	11	4,528,255		Hayes et al.	07/09/1985	
	12	5,169,659		Fleischmann et al.	12/08/1992	
	13	5,434,019		Zhang et al.	07/18/1995	
	14	5,498,496		Sasaki et al.	03/12/1996	
	15	5,582,936		Mrotek et al.	12/10/1996	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. 1	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T6
		Office3	Number4	Kind Code5 (if known)				

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Unique citation designation number. 2 See attached Kinds of U.S. Patent Documents. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

BFLODOCS: 649293